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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,174	12/27/2000	Hideto Noguchi	500.39435X00	5029

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EXAMINER

TUCKER, WESLEY J

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/748,174

Applicant(s)

NOGUCHI ET AL.

Examiner

Wes Tucker

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,538,698 to Anderson.

With regard to claim 1, Anderson discloses an image transcription apparatus including a random access recording medium (column 4, lines 12-14), driving means for driving said random access recording medium (column 4, lines 19-22), display means for displaying picture data recorded (column 4, lines 17-19), and a memory (column 4, lines 12-14) for storing temporarily recording picture data supplied from a video input unit and reproduction picture data recorded on said recording medium. Anderson discloses a Dynamic Random Access Memory (DRAM) with a CPU for driving the memory. In order to have a memory a recording medium is inherent. The picture display is disclosed as an LCD screen.

Anderson further discloses an image transcription apparatus wherein said recording medium includes a picture recording area for recording picture data (column 4, lines 12-14), an attribute data recording area for recording attribute data of said

picture data and a thumbnail image data recording area for recording thumbnail image data which represent features of said picture data in correspondence to said attribute data (Fig. 5, elements 805 and 825, and column 5, lines 40-48). Figure 5 details the different sections of an image file in memory. The image tag and image header both contain information about the image or attribute data.

Anderson further discloses the apparatus wherein said memory includes a work area used for recording the picture data on said random access recording medium and reproducing the picture data therefrom, an attribute data storage area for storing the attribute data recorded on said recording medium and a shared storage area for recording temporarily the picture data for recording as well as those for reproduction (column 4, lines 12-21). Anderson discloses several input buffers or a work area within the DRAM. The raw image data is processed from the input buffer, once processed the image data is transferred to the frame buffer to be displayed. The attribute data storage area is where the image file is stored in the frame buffer (Fig. 5, elements 805 and 825). The frame buffer serves as a shared storage area used to record the input image data and is used to display the image.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2623

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of U.S. Patent No. 6,538,698 to Anderson and U.S. Patent No. 6,360,056 to Ando.

With regard to claim 2, Anderson discloses an image transcription apparatus according to claim 1. Anderson does not disclose a thumbnail-image-dedicated storage area to which the thumbnail image data stored in said shared storage area and displayed on said display unit is transferred from said shared storage area to be stored in said thumbnail-image-dedicated storage area.

Ando discloses a dedicated thumbnail storage area in which thumbnail images are stored (Fig. 1, Element 1016). The thumbnails are stored together in order to access them quicker and easier from a common storage space for display. Ando teaches that one object of the invention is to provide playback of images with the advantage of high-speed access to an information storage medium where different attribute data about the images is also stored along with the images (column 2, lines 13-20). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use a thumbnail dedicated storage area in order to access the thumbnails quickly and easily.

With regard to claim 3, Anderson discloses an image transcription apparatus according to claim 1. Anderson does not disclose wherein said attribute data recording area and said thumbnail image data recording area are allocated on said recording medium such that said attribute data can successively be recorded in said attribute data recording area and that said thumbnail image data can also be successively recorded in said thumbnail image data recording area.

Ando discloses successive recording of thumbnail and attribute data in respective dedicated storage areas (Fig.1, elements 1016 and 1011). Here dedicated storage areas are disclosed for attribute data or control info. When the dedicated storage area stores more than one thumbnail or set of attribute data, each additional data element is recorded successively. The use of dedicated storage areas allow for greater efficiency by storing the elements successively. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to allow for successive recording of thumbnail and attribute data in their respective dedicated storage areas in order to use the storage area more efficiently.

With regard to claim 4, Ando further discloses a storage area of a predetermined size (Fig.9F, elements 1778, 1779, and 1016). Here the space for the thumbnail objects is disclosed to be a predetermined size and is therefore to be used to store a predetermined number of thumbnail objects.

With regard to claim 5, Anderson discloses an image transcription apparatus according to claim 1. Anderson does not disclose the apparatus wherein said attribute data recording area, said thumbnail image data recording area and said picture data recording area are previously so secured on said recording medium that a plurality of said attribute data recording areas are secured and thence a plurality of said thumbnail image data recording areas are secured and thence a plurality of said picture data recording area are secured along a circumference of said recording medium in this order as viewed in a direction from an innermost periphery of said recording medium toward an outer periphery thereof.

Ando discloses these storage areas on a disk in the order specified (Fig.1, Elements 1011,1024, and 1013). Here a disk memory is displayed where attribute data comes first in the form of AV Data Control Info (1101) and then Thumbnail Control Info (1024) both in the block of Control Info (1011). Picture objects are on the outside of both of those data blocks (1013). It is well known in the art that disk memory conventionally reads from the inside of the disk to the outside. The CPU clearly needs to access the attribute and thumbnail information first and most often so the logical choice for placement on the disk would be in the order listed. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Anderson to have the storage of Ando in order to efficiently access the disk.

With regard to claim 6, Anderson discloses a method of recording on a random access recording medium allowing random access thereto picture data (column 4, lines

12-14), attribute data corresponding to said picture data and indicating attributes of said picture data, respectively, and thumbnail image data representing features of said picture data, respectively, and transferring both of said attribute data and said thumbnail image data or alternatively either one of them from said random access recording medium for displaying both of said attribute data and thumbnail image data or alternatively either one of them on a display unit of an image transcription apparatus (Fig. 5, elements 805 and 825, and column 5, lines 40-48 and Fig.3, elements 700 and 708). Please refer to discussion for claim 1.

Anderson further discloses the step of transferring said attribute data and said thumbnail image data recorded on said random access recording medium to a memory when neither recording nor reproduction of said picture data is performed (column 4, lines 19-28). Here Anderson discloses a frame buffer or a memory where once the image data is processed it is stored for display on the LCD screen. The LCD screen is operable in both a capture mode and a review mode (col.4, lines 40-44). In review mode neither recording nor reproduction of picture data is performed and thumbnails are scrolled across the top of the LCD screen and as each thumbnail is selected that image's respective attribute data is displayed (column 4, lines 50-55 and column 5, lines 5-10).

Anderson further discloses displaying both of said attribute information and said thumbnail image data stored in said memory or alternatively either one of them on said

display unit (Fig.3, elements 700 and 708). Here a view is given of the LCD screen where several thumbnails are displayed along the top and the selected or highlighted thumbnail has its attribute data displayed as well.

Anderson further discloses displaying said thumbnail image data when said thumbnail image data is to be subsequently displayed on said display unit (Fig. 3, elements 700 and 704). Here a view of the display shows a list of thumbnails across the top and a larger display of the selected thumbnail.

Anderson does not disclose transferring and copying the thumbnail image data for storage thereof to a thumbnail-image-dedicated area of said memory upon transition to recording or reproduction of new picture data in a state in which both of said attribute data and said thumbnail image data or alternatively either one of them is being displayed on said display unit.

Ando discloses a thumbnail dedicated storage area (Fig. 1, element 1016). It would be logical to transfer the thumbnail image data to the thumbnail dedicated storage area whenever they are no longer displayed in a frame buffer or wherever they are when they can no longer be displayed and held in the display memory. The thumbnail and attribute data must be transferred somewhere if the area in which they are held is no longer available. The thumbnail data must be transferred to the thumbnail dedicated storage area so that the thumbnail may be properly called and displayed later. Therefore it would have been obvious to one of ordinary skill in the art

at the time of the invention to include a thumbnail dedicated storage area as taught by Ando in order to store the thumbnail data when the thumbnail is no longer being displayed.

Anderson does not disclose transferring said attribute data and said thumbnail image data from said random access recording medium to said memory for storage therein when said thumbnail image data is not stored in said thumbnail dedicated area.

As stated above Ando discloses a thumbnail dedicated storage area. It would be logical to transfer thumbnail and attribute data to the storage area when the thumbnail data is not already stored in said thumbnail dedicated area for the same reasons stated above. The thumbnail data must be transferred to the thumbnail dedicated storage area so that the thumbnail may be properly called and displayed later. It is inherent that data may be transferred to an area devoted for that data if that data has not already been stored in said area.

With regard to claim 7, Anderson discloses displaying the attribute data stored in said memory upon displaying of said attribute data on said display unit (Fig. 3);

Anderson does not disclose a thumbnail dedicated storage area. Ando does disclose a thumbnail dedicated storage area and transferring said attribute data and said thumbnail image data from said random access recording medium to said memory for storage therein when said thumbnail image data is not stored in said thumbnail

dedicated area, for displaying said attribute data stored in said memory on said display unit would be obvious for the same reasons discussed above in claim 6.

With regard to claim 8, Anderson discloses a transfer method according to claim 6, wherein said thumbnail image data are displayed on said display unit in the form of a list of thumbnail images which correspond to a plurality of said picture data, respectively (Fig. 3, elements 700). Anderson describes a display where thumbnails are scrolled across the LCD screen and correspond to respective picture data.

Conclusion

The prior art made of record but not relied upon is considered pertinent to the applicant's disclosure.

U.S. Patent 6,164,831 to Kuchta et al. is cited for disclosing multi-format storage of full and reduced resolution images or thumbnails.

U.S. Patent 6,249,316 to Anderson is cited for disclosing creating a temporary group of images to be displayed on a digital camera.

U.S. Patent 6,463,177 to Li et al. is cited for disclosing dynamic management of embedded images in a digital storage device.

U.S. Patent 6,567,119 to Parulski et al. is cited for disclosing a digital imaging system and file format for storage and selective transmission of processed and unprocessed image data.

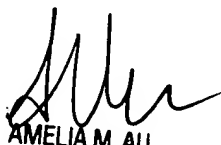
U.S. Patent 6,515,704 to Sato is cited for disclosing an apparatus and method for displaying thumbnails on an image capture device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wes Tucker whose telephone number is 703-305-6700. The examiner can normally be reached on 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is (703)308-5397.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Wes Tucker
11-10-2003


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